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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

In the Matter of

Preparation for International  
Telecommunication Union World  
Radiocommunication Conference

Second Notice of Inquiry

IC Docket No. 94-31

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COMMENTS OF ESD USA, INC.

ESD USA, Inc. ("ESD") hereby submits its comments on the FCC's preliminary proposals for the 1995 World Radiocommunication Conference ("WRC") and future WRCs in response to the Second Notice of Inquiry of the Federal Communications Commission in the Matter of Preparation for International Telecommunication Union World Radiocommunication Conferences ("Second NOI"). ESD comments principally on two issues raised by the FCC's Second Notice of Inquiry: (1) The need for a global Mobile Satellite Service ("MSS") Policy; and (2) Reverse Band Working ("RBW") in the band 5.000-5.250 GHz for non-geostationary orbiting ("NGSO") MSS feeder links is inconsistent with existing and planned NGSO MSS feeder link operations and is contrary to the need for a stable and predictable regulatory regime necessary for NGSO MSS.

I. INTRODUCTION

ESD is a Florida corporation with its principal place of business in Cocoa Beach, Florida. ESD is a wholly-owned subsidiary of Elbe Space & Technology Dresden KG ("Elbe Space") a company organized pursuant to the laws of Germany with operating offices in Germany, Russia and the United States. The Science & Technology

International of Russia ("STIR") is a duly registered Russian Joint Stock Corporation with its principal offices in Moscow. STIR is a wholly owned subsidiary of Elbe Space.

## **II. ELEKON-STIR SATELLITE SYSTEM**

In June, 1993 STIR contracted with a variety of renowned Russian enterprises for the manufacture and launch of a world-wide mobile communications satellite system to be operated in low earth orbit. The communication payload is 100% owned by STIR and the satellite system is named "ELEKON-STIR". ELEKON-STIR is a combined Mobile Satellite Service ("MSS") and Fixed Satellite Service ("FSS") system designed to provide world-wide (global) data transmission, position determination and emergency position location monitoring, as well as limited voice communication services. An experimental ELEKON-STIR payload was launched in November 1994 and currently is being tested. In late 1995 the ELEKON-STIR system will be deployed in a series of launches and will be fully operational with seven operating satellites and ground infrastructure in early 1996.

The construction, launch and operation of ELEKON-STIR has been licensed to STIR by the Russian Space Agency. Appropriate radio operating licenses have been granted STIR by the Russian State Frequency Regulation Board to operate the earth-to-space and space-to-earth mobile communications and related fixed and feeder link communications. The ELEKON-STIR system will operate in the bands 1610-1631.5 MHz and 2483-2500 MHz for mobile communications and in the bands 5150-5216 MHz (space to earth) and 7025-7075 MHz (earth to space) for feeder link operations.<sup>1</sup> The Advance Publication information and Appendix 4 information on the ELEKON-STIR system was submitted to the International Telecommunication Union in March, 1994 by the Russian administration and Appendix 3 Information was filed with the ITU on Dec. 15, 1994. ELEKON-STIR currently is in the process of coordination.

The ELEKON-STIR system is a joint commercial and government effort to develop commercial space enterprises in Russia in cooperation with international investors and entrepreneurs. ELEKON-STIR is supported by investment from the United States, Germany and Russia. As the system is made operational, operating relationships and investment opportunities will be extended to enterprises in other nations. Mobile terminals and user equipment can be manufactured in a variety of countries. Users located anywhere on the globe will have access to the commercial ELEKON-STIR services (subject to authorizations by the responsible administrations). ELEKON-STIR is an important commercial initiative consistent with the Russian

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<sup>1</sup> Other systems are planning to use these frequencies, including three systems which have been licensed by the FCC. However, ELEKON-STIR will be deployed and made operational several years before the U.S. systems will be operational.

government's policy of converting from a state planned economy to a market driven economy.

## **II. THE COMMISSION SHOULD ADOPT A GLOBAL NGSO MSS POLICY BASED ON OPEN ACCESS**

By scope and by nature, NGSO MSS systems provide global network services to a global market. National restrictions on access to such services diminish the addressable market and severely reduce worldwide public benefits inherent in the operation of such systems. Both US-origin and non-US origin NGSO MSS systems are planned to be implemented in the next several years. All of these systems are global and share a need for international access to and by users, capital, technology and operational arrangements. The financial and operational success of these global systems is highly dependent upon open access to customers in a substantial number of nations. No global NGSO MSS system can be successful if a high number of countries allow services to be provided or be made available only by national systems. As the nation with the most to gain by world-wide acceptance of open access to NGSO-MSS, the U.S. also has the most to lose if it does not forsake its long-standing policy against authorizing U.S. users access to non-U.S. satellite systems only when no U.S. systems are available. The Commission should abandon that out-dated policy, which is contrary to one of the basic principles of the Administration's Global Information Infrastructure policy, in favor of a policy that includes open access.<sup>2</sup>

Open access is one of the cornerstones of the Administration initiative on Global Information Infrastructure ("GII"). The basic principles espoused by the Administration and adapted last year by the World Telecommunication Development Conference held in Buenos Aires are:

- Private Investment
- Competition
- Open Access
- Universal Service
- Flexible Regulations<sup>3</sup>

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<sup>2</sup> We are encouraged to note that the Commission stated in its Final Rule on Licensing Policies and Procedures, Satellite Communications, 59 F. Reg. 53294, 53325 (Oct. 21, 1994), that it was "not precluding access to the U.S. market." However, not precluding access is not the same as providing open access.

<sup>3</sup> See, Speech of Vice President Al Gore, G-7 Ministerial Conference, Brussels, Belgium (February 25, 1995) ("Speech").

These principles have been central elements of U.S. policy in bilateral and multilateral discussions about GII, including memoranda of understanding between the United States and Russia.<sup>4</sup>

The Administration has recognized the importance of NGSO MSS as an essential element of the GII and the importance of applying the basic principles of GII to this promissory new service.<sup>5</sup> A new global NGSO MSS policy should be adopted by the Commission based on the GII principles.

The Commission has recognized the importance of the upcoming WRC-95 for the successful introduction of global mobile satellite services.

WRC-95 will be the first conference under the ITU's new conference planning cycle to discuss substantive spectrum allocation and regulatory matters. This conference represents a significant opportunity to build a foundation for advancing near and long-term United States telecommunications goals. In particular, WRC-95 is critical to a new commercial telecommunications industry -- the mobile-satellite services (MSS) industry, that includes low-Earth orbit (LEO) MSS systems. LEO systems can provide voice, data and other services at relatively low cost and will be a critical component in achieving the Commission's goals of universal service, open access and competition in the provision of services. They will also be part of a new seamless, nationwide (and eventually global) communication network. The new MSS industry also promises to stimulate significant economic growth both domestically and abroad. The proposals here are intended to facilitate implementing competitive MSS operations by easing international technical and regulatory constraints and providing additional spectrum allocations.<sup>6</sup>

The best means to achieving these objectives is to adopt a global NGSO MSS policy based on open access consistent with the principles of GII and which promotes access to services, to capital and industrial participation. U.S. national interests in NGSO MSS are not limited to the narrow interests of U.S. licensed operators or to U.S. spacecraft manufacturers, although those are important interests. The U.S. national interest extends to a wider universe of interests which include users, investors, equipment manufacturers, value adders and resellers who will use or participate in global systems whether they are licensed by the U.S. or licensed by another country.

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<sup>4</sup> See, Speech at 2.

<sup>5</sup> See, Speech at 5.

<sup>6</sup> Second NOI, at ¶ 6.

Taking into account all U.S. interests, Commission policy should be to foster global NGSO MSS systems with open national markets, open industrial participation, open investment, and open competition, regardless of whether the system is licensed by the Commission or whether the system is U.S. controlled. Consequently, the Commission should propose WRC-95 adoption of an international policy of open access for NGSO MSS and should take the lead in implementing open access by adopting such a policy in preparation for WRC-95.<sup>7</sup> Such a policy should incorporate the basic principles of GII, including:

- (a) Open access to markets and competition - satellite systems wherever licensed should be able to provide services in all markets.
- (b) Open access to investment in the satellite segment - no nationality based ownership restraints on satellite systems providers which precludes foreign ownership of nationally licensed satellite systems.
- (c) Open access to investment in the service segment - No nationality based ownership restraints on carriers which precludes foreign ownership of nationally licensed service providers, value adders or resellers.

Adoption of a policy as proposed herein not only serves U.S. interests but international interests. Many of the concerns expressed by the European Commission would be resolved by explicit adaption by the Commission of the GII principles.

**II. NGSO MSS FEEDER LINK RBW IN THE BAND 5.000-5.250 GHZ IS INCONSISTENT WITH A GLOBAL NGSO MSS POLICY AND SHOULD NOT BE ADOPTED BY THE COMMISSION.**

In the Second Notice of Inquiry, the Commission noted that Task Group 4/5 studied the possibility of reverse band operation (so called reverse band working or "RBW") of NGSO MSS feeder links in FSS bands.<sup>8</sup> The Commission also noted that Task Group 4/5 had concluded "that RBW appeared promising in the C and Ku bands."<sup>9</sup>

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<sup>7</sup> The Commission should be mindful of the advice of Mahatma Gandhi which Vice President Gore so aptly invoked in his speech to the G-7 Ministerial Conference: "You must become the change you wish to see in the world." See, Speech at 2.

<sup>8</sup> Second Notice at Page 55.

<sup>9</sup> *Id.* at ¶ 55.

In particular, Loral/Qualcomm, Ellipsat and Constellation propose use of some or all of the band 5.000-5.250 GHz for Earth-to-Space for feeder link use.<sup>10</sup>

The RBW in the band 5.000-5.250 GHz appears to be incompatible with the ELEKON-STIR system which has been designed and constructed in accordance with and in reliance on the existing Radio Regulations. These frequencies have been assigned to ELEKON-STIR by the Russian Administration and those assignments are in the process of international coordination pursuant to the Radio Regulations.<sup>11</sup> It clearly is impractical and inequitable to propose RBW in the band 5.000-5.250 GHz given the resources and capital already invested in the ELEKON-STIR system.

ELEKON-STIR has initiated discussions with Loral/Qualcomm<sup>12</sup> to determine if there is possible solution to the apparent incompatibility of the two systems proposed usage of the band 5.000-5.250 GHz. Given the fact the ELEKON-STIR already has been constructed, that the system was advance published and began the process of coordination before Loral/Qualcomm, Constellation and Ellipsat, and that discussions on possible resolution of the apparent conflict are being undertaken by the parties involved, it would appear to premature for the U.S. to adopt a position on RBW in the band 5.000-5.250 GHz.<sup>13</sup>

ESD also notes that there are other technical solutions to the proposed lack of available spectra for the proposed U.S. LEO MSS systems. In the FCC's Final Rule on Licensing Policies and Procedures, Satellite Communications, 59 Fed. Reg. 53294, 53317 (Oct. 21, 1994)("BIG LEO"), the Commission noted that if adequate spectra were not available below 15 GHz, that the Commission was prepared to authorize all U.S. LEO MSS licensees to operate feeder links in the 20-30 GHz band rather than delay licensing and implementation of Big LEO systems.

If the Commission is interested in promoting global NGSO MSS, then the Commission must support a stable international regulatory environment in which investors and operators can have confidence. A proposal for RBW in the band 5.00-

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<sup>10</sup> *Id.* at ¶ 52 fn. 72.

<sup>11</sup> In fact the coordination process has been completed with the United Kingdom. Belgium has consented and approved the system as advanced published. Coordination is nearly complete with Saudi Arabia and coordination discussions with a number of other countries has been or soon will be initiated.

<sup>12</sup> ELEKON-STIR also will be initializing similar discussions with Constellation and Ellipsat.

<sup>13</sup> If the apparent conflicts cannot be resolved, the U.S. should not adopt the proposed RBW in the band 5.000-5.250 GHz.

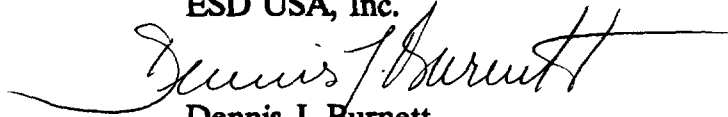
5.250 GHz for the benefit of a new operator at the expense of existing operators when other options are available is neither equitable nor conducive to maintaining a stable and predictable international regulatory environment for NGSO MSS.

IV. CONCLUSION

ESD respectfully submits that the Commission should clearly enunciate a policy of open access prior to WRC-95 and use the WRC-95 to encourage other national administrations to adopt similar policies on a bi-lateral or multi-lateral basis. The Commission should not propose RBW in the band 5.000-5.250 GHz as such a proposal would be inequitable to existing users and would undermine investor confidence in the international regulatory regime; investor confidence essential to NGSO MSS.

Respectfully submitted,

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